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Colt: A New Early Season High-performing White Oat

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COLT

A new early season
high-performing white oat



SOUTH DAKOTA STATE UNIVERSITY
Agricultural Experiment Station
U. S. Department of Agriculture

COLT

A new early season
high-performing white oat



ORIGIN:

'Colt,' a white-hulled spring oat, was developed by the South Dakota Agricultural Experiment Station (SDAES) and released in 2009. Colt was tested as experimental line SD020883-29. SD020883-29 was an F10 derived line developed from the two-parent population SD97575/Morton. The complete pedigree is Settler/4/Nodaway70/Dal//Moore/3/Dumont/5/Spear/Kelsey/3/WI22212/Froker//ND770015/4/Settler/6/-Troy/Lotta/7/Morton.

AGRONOMIC TRAITS:

Colt, when compared to the variety 'Don,' has superior grain yield, test weight, protein percentage, and groat percentage. The disease ratings include: resistance to smut, moderately susceptible-susceptible to crown rust, and moderately susceptible to BYDV. Colt also has a short-to-medium plant height and a very early maturity. It is a multi-purpose variety that may be used for companion crop, multi-cropping, and/or harvesting for grain.

RECOMMENDED CULTURAL PRACTICES:

Do not over fertilize with nitrogen. Total available units of nitrogen should not exceed 100 lbs/acre; this includes legume credits. Do not plant at a high seeding rate; keep the seeding rate at a maximum of 28 pure live seeds per square foot—excessively high seeding rates increase lodging. In order to ensure maximum production in areas that historically have high infections of crown and stem rust, an application of a fungicide is recommended.

Lon Hall, Project Leader,
SDSU Oat Breeding Program

CROP PERFORMANCE TESTING AND

UEO REGIONAL TRIALS DATA:

Table 1. Mean comparisons of traits for selected varieties in the 2007–2009 South Dakota Standard Variety Oat Performance Trials

Variety	Yield Bu/a	Test Wt. Lbs/bu	Straw Strength ¹	Heading ² Don = 1 Days	Height Inches	Protein %	2009 SD Buckthorn Crown rust %
COLT	116	38.5	3.2	0	36	15.5	89
DON	110	36.5	2.9	1	33	14.6	80
REEVES	108	38.1	4.1	2	40	15.5	76
JERRY	108	37.6	2.6	5	39	15.3	79
LOC-YRS ³	15	22	7	6	22	22	1

¹Straw strength rating: 1 = strongest.

²Heading = days. Don is the standard.

³Loc-yr = number of locations X years tested. For example: 5 locations X 3 years = 15 loc-yr

Table 2. 2008 Cooperative Uniform Early Oat Performance Nursery data

Variety	3 loc/yr Beta-Glucan %	8 loc/yr Oil %	8 loc/yr Protein %	8 loc/yr Groats %	2008 MN Buckthorn Crown Rust	2008 MN innoculated Smut %	2 locs IL and IN BYDV ¹ 0-9
COLT	4.2	5.1	16.2	71.9	*10S	0.0	5.5
DON	5.4	7.4	15.7	70.0	*65S	0.0	4.5

*S = susceptible (large pustule), the number is percent of leaf infected.

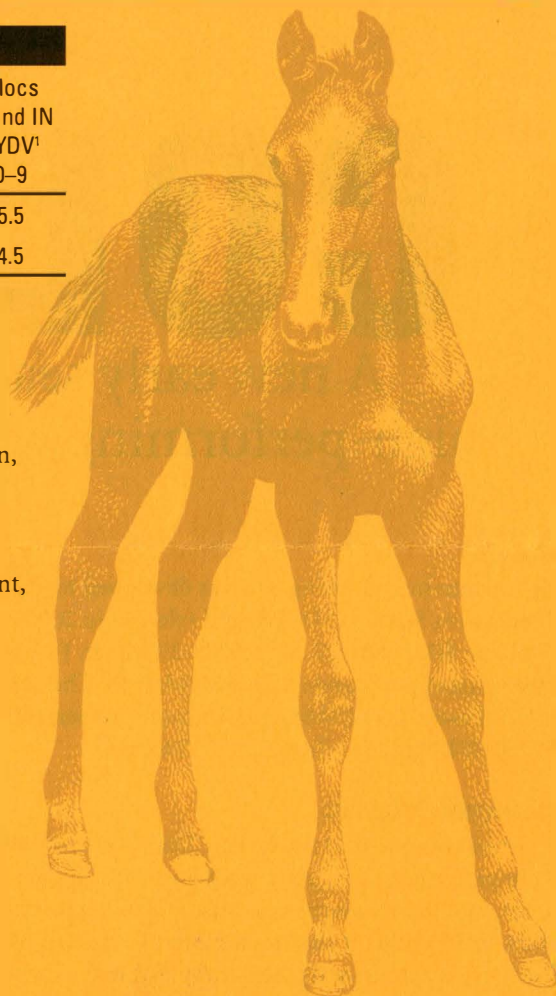
¹BYDV = Barley Yellow Dwarf Virus. 0 is the best rating.

Application for Plant Variety Protection is pending.

Foundation seed is available to interested growers by contacting Jack Ingemansen, manager of SD Foundation Seed Stocks.

Phone: (605) 688-5418 Email: jack.ingemansen@sdstate.edu

Address: Jack Ingemansen, SD Foundation Seed Stocks, Plant Science Department, SDSU, Brookings, SD 57007



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